CHAPTER 5.0

ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

5.2 Land Use, Zoning, and Adopted Policies

5.2.9 Assessment

Section 5.2 of the 2002 Final EIR assessed whether the proposed interchange would result in inconsistencies with applicable land use plans and regulations.

As is the case with the adopted Flyover interchange alternative (Alternative B), Alternative D and Alternative E would place the connection between the Highway 50 interchange and the Rancheria into the Indian Reservation Road (IRR) system. As such, the use of the property within the roadway right-of-way would not be subject to local land use controls. Likewise, the Rancheria land use is not subject to, or included in the County of El Dorado General Plan process. Therefore, access to the Rancheria from Route 50 is not provided for within the Circulation Element of the County's General Plan.

The 2002 Final EIR concluded that the interchange would not permanently impact local roadways or prevent local roadways/land from being improved or otherwise modified in the future (see Section 5.4 of this Supplemental EIR). Consequently, the interchange project is not inconsistent with the Circulation Element of the County of El Dorado General Plan. The same conclusion applies to Alternatives D and E because the interchange is in the same location.

Alternatives D and E include the same land uses as the proposed hotel/casino project, except Alternative E does not include a hotel. The 2001 NIGC EA stated that the Tribe amended its land use and zoning ordinances to accommodate the placement of the proposed hotel and casino complex on the existing Rancheria. The land identified for the hotel and casino project are designated as Commercial under the Tribe's Land Use Plan. The El Dorado County Land Use Plan does not apply to the Rancheria.

5.3 Geology and Soils

5.3.4 Impacts and Mitigation Measures

Impact/ Mitigation

Impact 5.3-1 Seismic Groundshaking

AD, AE Seismic groundshaking impacts related to the construction of the interchange under Alternative D or Alternative E would be the same as identified for the interchange project. The incorporation of Caltrans' engineering criteria would result in an interchange that could withstand reasonably anticipated levels of seismic shaking from an earthquake on the regionally active and potentially active faults.

On-Rancheria development impacts would be equal to or less than for the Proposed Project, given the reduced footprints and reduced structural development associated with Alternative D and Alternative E. On-Rancheria construction would be required to comply with engineering recommendations in accordance with seismic requirements of Zone 3 of the current UBC and the California Building Code (Title 24) additions (per the requirements of the Tribal-State Compact). Given the required compliance with the UBC and Caltrans design criteria, structures will be designed to withstand reasonably anticipated levels of seismic shaking from an earthquake on the regional active and potentially active faults. Therefore, Alternatives D and E would not result in a significant effect with respect to seismic shaking.

Mitigation 5.3-1 Seismic Groundshaking

None required.

Impact 5.3-2 Slope Instability and Landslide Hazards

AD, AE The slope instability and landslide hazards associated with construction of the interchange under Alternative D or Alternative E would be the same as identified for the interchange project. Therefore, interchange construction and operation would not result in a significant slope stability and landslide hazard impact.

The casino complex development footprint under Alternative D would be similar to that of the Proposed Project. The development footprint would be less under Alternative E because no hotel would be constructed. Therefore, movement of soils would be equal to or less than that described for the Proposed Project. Those impacts were less-than-significant, given the nature of the existing geology

(i.e., meta-volcanics), the fact that hillside cuts will be designed at appropriate slopes as to preclude slope failure, fill areas will be engineered to support loads with minimal settlement, and that a grading plan will be implemented. Therefore, the impacts to geology for both Alternatives D and E also would be less-than-significant.

Mitigation 5.3-2 Slope Instability and Landslide Hazards

None required.

Impact 5.3-3 Soil Erosion

AD, AE The 2002 Final EIR found that soil erosion impacts of the interchange project would be less-than-significant. Soil erosion impacts related to Alternatives D and E would be the same as identified for the interchange project. As described in the 2002 Final EIR, potential soil erosion hazards would be addressed through compliance with Caltrans standards and construction BMPs required through the NPDES permit. Development of the interchange would also require compliance with grading, erosion and sediment control standards of the El Dorado County Municipal Code (Chapter 15.14), and applicable codes and requirements of the 1997 UBC with California additions (Title 22). Compliance with these standards would reduce soil erosion impacts to a less-than-significant level.

The 2001 NIGC EA found on-Rancheria soil erosion impacts to be less-than-significant. On-Rancheria grading and development would be equal to or less than that associated with the Proposed Project. Development of the casino complex would result in a less-than-significant soil erosion effect given that development would occur on relatively non-expansive soils; would comply with El Dorado County Grading, Erosion and Sediment Control Ordinance; would comply with applicable provisions of the UBC; and would follow the construction specifications found in Appendix G of the 2001 NIGC EA. All of these measures also would apply to Alternative D and Alternative E, and implementing those measures would confirm that the potential soil erosion impacts of those alternatives will also be less-than-significant.

Mitigation 5.3-3 Soil Erosion

None required.

Impact 5.3-4 Excavation of Serpentinite

AD, AE As with the interchange project, construction activities associated with interchange construction under Alternative D and Alternative E would be expected to result in excavation of rock containing serpentinite. This impact would be reduced to a less-than-significant level with mitigation. Accordingly, the mitigation measures identified for the interchange project would also apply to Alternative D and Alternative E, and would reduce this potential impact for those alternatives to a less-than-significant level.

Under Alternative D and Alternative E, the hotel and casino (casino only under Alternative E) would have a smaller development footprint than the Proposed Project. A series of mitigation measures designed to minimize the potential effects of asbestos disbursed by construction were approved by the NIGC for the hotel and casino project. Implementation of those same measures would reduce the potential on-Rancheria asbestos effects of Alternative D and Alternative E to a less-than-significant level.

Mitigation 5.3-4 Excavation of Serpentinite

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.3-5 Cumulative Impacts

AD, AE The only project-specific geology and soil impact identified is related to the excavation of serpentinite (Impact 5.3-4). The serpentinite impact is related to air quality emissions (asbestos). Cumulative development in El Dorado County may result in the excavation of serpentinite; however, compliance with County regulations would be required. The implementation of air quality Mitigation Measures 5.5-2 will ensure that Alternative D and Alternative E will not significantly add to the cumulative release of asbestos containing materials. Therefore, no significant cumulative geologic, soils, or seismic impacts are anticipated to occur as a result of the Alternative D or Alternative E.

Mitigation 5.3-5 Cumulative Impacts

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

5.4 Transportation/Circulation

5.4.3 Impacts and Mitigation Measures

Impacts/Mitigation

Impact 5.4-1 Existing Plus Project - Ramp Merge/Diverge Operations

AD, AE The supplemental traffic analysis prepared for Alternative D and Alternative E (**Appendix B**) concluded that both alternatives would generate fewer trips than the proposed hotel/casino project. The proposed casino/hotel project would result in acceptable operations at freeway ramp merge/diverge areas under all peak hour scenarios. Given that the trip generation is less than the proposed hotel/casino, the freeway ramp merge/diverge areas for the new interchange under both alternative scenarios are projected to operate acceptably at Level of Service (LOS) D or better during all three peak hour scenarios for existing conditions with the new interchange and casino/hotel, regardless of whether they are analyzed using rolling terrain or specific grade/length. Therefore, this is a less-than-significant impact.

Mitigation 5.4-1 Existing Plus Project - Ramp Merge/Diverge Operations

None required.

Impact 5.4-2 Existing Plus Project - Peak Hour Freeway Mainline Operations

AD, AE The reduced number of trips generated by both Alternative D and Alternative E as compared to the proposed hotel/casino would result in reduced existing plus project impacts to the ramp merge/diverge operations. **Table 5.4-14** of the 2002 Final EIR demonstrates that the freeway mainline is projected to operate acceptably at LOS D or better during all three peak hour scenarios for existing conditions with the proposed interchange and casino/hotel. Given the reduced traffic volumes that would occur under Alternative D and Alternative E, the same conclusion that the impact would be less-than-significant results with these alternatives.

Mitigation 5.4-2 Existing Plus Project - Peak Hour Freeway Mainline Operations

None required.

Impact 5.4-3 Existing Plus Project - Interchange Intersection Operations

AD, AE Impacts to intersection operations were analyzed only for Alternative C in the 2002 Final EIR since it was the interchange design that would create new intersections. There would be no impact associated with the Flyover Alternative since there are no intersections associated with the interchange. The Flyover Alternative is a component of both Alternatives D and E, therefore neither of those alternatives would have any impact to intersection operations.

Mitigation 5.4-3 Existing Plus Project - Interchange Intersection Operations

None required.

Impact 5.4-4 Existing Plus Project - Local Roads Analysis

AD, AE The discussion of Impact 5.4-4 of the 2002 Final EIR established a methodology and presented an impact analysis that concluded that the proposed casino/hotel project would not significantly impact any of the local roadways and highways (including US-50, SR-49, and SR-193) for existing conditions on an average weekday. Both Alternative D and Alternative E assume the same types of uses as the proposed casino/hotel project, albeit with a smaller casino in both alternatives, and no hotel in Alternative E, therefore both alternatives would generate fewer trips than the proposed casino/hotel project. Accordingly, impacts to local roadways would be less than significant.

Mitigation 5.4-4 Existing Plus Project - Local Roads Analysis

None required.

Impact 5.4-5 Cumulative Plus Project - Ramp Merge/Diverge Operations

AD, AE **Table 5.4-20** of the 2002 Final EIR provides a summary of cumulative freeway merge/diverge operations along the existing 4-lane freeway for all three peak hour scenarios following the completion of the proposed interchange and proposed hotel/casino. Both eastbound on-ramp and

westbound on- and off-ramps are projected to operate acceptably during all three peak hours. The eastbound off-ramp is projected to operate unacceptably at LOS F during the weekday PM peak hour and Saturday peak hour, and the westbound off-ramp is projected to operate acceptably at LOS D during the AM peak hour. As with the Proposed Project, for Alternative D and Alternative E, an auxiliary lane between Shingle Springs Drive and the interchange (eastbound direction) would mitigate this impact to a less-than-significant level.

Mitigation 5.4-5 Cumulative Plus Project - Ramp Merge/Diverge Operations

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.4-6 Cumulative Plus Project - Peak Hour Freeway Mainline Operations

AD, AE Based on **Table 5.4-22** of the 2002 Final EIR, with the Proposed Project, the freeway is projected to operate acceptably at LOS E or better both east and west of the proposed interchange and in both directions during AM and Saturday peak hour conditions. During the PM peak hour, with the Proposed Project, the freeway is projected to operate acceptably at LOS E or better both east and west of the proposed interchange along the westbound direction, and east of the proposed interchange along the eastbound direction. Given that Alternative D and Alternative E would generate less traffic than the Proposed Project, the freeway mainline operations impacts also would be less under these alternatives. The 2002 Final EIR concluded that this impact would be less than significant, therefore, Alternative D and Alternative E would have less-than–significant impacts.

The one exception is that the freeway is projected to operate unacceptably at LOS F west of the proposed interchange along the eastbound direction during the PM peak hour. This significant operation would also exist for both Alternative D and Alternative E. The development of an auxiliary lane between Shingle Springs Drive and the interchange (eastbound direction) would reduce the impact to a less-than-significant level.

Mitigation 5.4-6 Cumulative Plus Project - Peak Hour Freeway Mainline Operations

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.4-7 Cumulative Plus Project - Interchange Intersection Operations

AD, AE Impacts to intersection operations were analyzed only for AC since it was the only interchange design that would create new intersections. There would be no impact from Alternative D or Alternative E since there are no intersections associated with the interchange component of these projects.

Mitigation 5.4-7 Cumulative Plus Project - Interchange Intersection Operations

None required.

Impact 5.4-8 Cumulative Plus Project - Ramp Metering

AD, AE According to **Table 5.4-26** of the 2002 Final EIR, Saturday peak hour conditions are when traffic volumes along the new on-ramps would be heaviest for the Proposed Project. This impact would be mitigated to a less-than-significant level by adding metering lights to the ramps. Because traffic generated under Alternative D and Alternative E would be less than the proposed casino/hotel project, the freeway mainline operations would be impacted less under these alternatives. Nonetheless, the same mitigation measure would be required.

Mitigation 5.4-8 Cumulative Plus Project - Ramp Metering

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.4-9 Cumulative Plus Project - Local Roads Analysis

AD, AE The proposed casino/hotel project was found to not significantly impact any of the local roadways and highways (including SR-49 and SR-193, but

excluding US-50) under cumulative conditions on an average weekday. Given that traffic generated under Alternative D and Alternative E would be less than the proposed casino/hotel project, both alternatives would also result in a less-than-significant impact.

The analysis conducted for the Proposed Project anticipated that the section of US50 between the El Dorado County Line and El Dorado Hills Boulevard would operate at a deficient LOS F operation without the project. This would be reduced to a less-than- significant level with mitigation consisting of participation in a fair share contribution for future master planned improvements as identified by Caltrans and El Dorado County for this section of freeway. This mitigation measure is made enforceable against the Tribe by Section 10.8 of the Tribal-State Gaming Compact, which specifically requires the Tribe to contribute its "fair share" to mitigate traffic impacts on Highway 50 beyond the interchange and to mitigate all other significant adverse impacts.

Because Alternative D and Alternative E would generate less traffic than the Proposed Project, these alternatives would also result in less-than-significant cumulative traffic impacts with mitigation.

Mitigation 5.4-9 Cumulative Plus Project - Local Roads Analysis

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

5.5 AIR QUALITY

5.5.4 IMPACTS AND MITIGATION MEASURES

Impacts/ Mitigation

Impact 5.5-1 Construction Emissions

AD, AE Construction of both Alternative D and Alternative E would result in the temporary generation of emissions of ROG, NOx, and PM_{10}. Construction-related emissions result from construction equipment exhaust, construction employee commute travel, and fugitive dust from land clearing, earthmoving, and wind erosion of exposed soil. Additionally, asphalt paving activity generates emissions of ROG. The total worst-case daily construction-related emissions associated with the interchange, without mitigation measures, would be approximately 12.92 lbs/day of ROG, 102.57 lbs/day of NO_x and 407.51 lbs/day of PM_{10}. The analysis conducted for the proposed interchange project concluded that the emissions of NOx and PM10 would be a less-than-significant short-term impact with the implementation of mitigation measures. Because the interchange for Alternative D and Alternative E would be the same as for the proposed interchange project, the short-term construction air quality impact for Alternative D and Alternative E would also be less-than-significant with mitigation measures identified in Mitigation Measure 5.5-1 of the 2002 Final EIR.

The analysis of construction air quality impacts conducted for the proposed casino/hotel project in the 2001 NIGC EA concluded that, with mitigation, emissions from construction activities would be less than significant. Mitigation measures include compliance with the intent of Chapter 8.44 of Title 8 of the El Dorado County Ordinance Code, "Naturally Occurring Asbestos and Dust Protection Ordinance." Section 8.44.030 of this ordinance specifically addresses "General Requirements for Grading, Excavation and Construction Activities." Additional measures include detailed construction practices to reduce fugitive dust, creation of a Health and Safety Plan, employee training, air monitoring, and the voluntary implementation of the Air Pollution Control District's (APCD) Rules 215,224,229 and 300.

Development under Alternative D and Alternative E would result in a development footprint that is similar or reduced when compared with the Proposed Project. Accordingly, construction air quality would be less than for

the Proposed Project, but the mitigation measures identified in the 2001 NIGC EA would also apply to Alternative D and Alternative E.

Mitigation 5.5-1 Construction Emissions

No additional mitigation is required beyond that recommended in the 2002 Final EIR and the 2001 NIGC EA and incorporated into the hotel/casino and interchange projects.

Impact 5.5-2 Asbestos Emissions

AD, AE Both construction of the interchange and the on-Rancheria casino/hotel would occur in an area of the Sierra foothills region that includes an abundance of serpentine rock. When serpentine rock is broken or crushed, asbestos may be released from the rock and may become airborne, causing a potential health hazard. This is considered a significant but mitigable impact with the measures identified in the 2002 Final EIR and 2001 NIGC EA.

Mitigation 5.5-2 Asbestos Emissions

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.5-3 General Conformity with the State Implementation Plan

AB, AC As stated in the 2002 Final EIR, the U.S. EPA has established "de minimis" emissions thresholds of 25 tons per year for VOC emissions, 25 tons per year for NO_x emissions, and 100 tons per year for PM_{10} emissions. The analysis conducted for the proposed casino complex in the 2001 NIGC EA concluded that emissions would be 2.02 tons per year of VOC emissions, 16.00 tons per year of NO_x emissions, and 55.98 tons per year of PM_{10} emissions, which are all below the applicable thresholds. Both Alternative D and Alternative E include the same types of uses as the Proposed Project, albeit with a smaller casino in both alternatives, and no hotel in Alternative E. Therefore, both alternatives would generate fewer emissions than the Proposed Project. Therefore, a less than significant impact would result from both Alternative D and Alternative E.

Mitigation 5.5-3 General Conformity with the State Implementation Plan

None required.

Impact 5.5-4 Transportation Conformity with the State Implementation Plan

AD, AE As shown in **Table 5.5-4** of the 2002 Final EIR, the estimated regional mobile source emissions for each of the three analysis years and each of the three types of pollutants are less than the emissions budget. The analysis concluded that since these emission estimates are less than the emissions budgets, the Proposed Project conforms with the SIP. The same conclusion applies for Alternative D and Alternative E since they would produce fewer emissions than the Proposed Project.

Mitigation 5.5-4 Transportation Conformity with the State Implementation Plan

None required.

Impact 5.5-5 Carbon Monoxide Emissions

AD, AE The air quality analysis conducted for the Proposed Project in the 2001 NIGC EA concluded that a less-than-significant impact in carbon monoxide emissions would result for both the Existing Plus Project Conditions and 2025 Cumulative Plus Project Conditions. The emissions resulting from both Alternative D and Alternative E would be less-than-significant because the smaller facilities associated with those alternatives would produce fewer emissions than the Proposed Project.

Mitigation 5.5-5 Carbon Monoxide Emissions

None required.

Impact 5.5-6 Cumulative Carbon Monoxide Impacts

AD, AE As shown in **Table 5.5-5** in the 2002 Final EIR, the highest 1-hour average CO concentration for the Proposed Project is 3.0 ppm and the highest 8-hour average CO concentration is 2.1 ppm. These concentrations are estimated to

occur southeast of the Rancheria. Both the 1-hour value and the 8-hour value under Existing Plus Project Conditions are below the CO air quality standard.

Under 2025 Cumulative Plus Project Conditions, the highest 1-hour average CO concentration is 2.5 ppm and the highest 8-hour average CO concentration is 1.8 ppm. These concentrations are estimated to occur southeast of the Rancheria. Both the 1-hour value and the 8-hour value under 2025 Cumulative Plus Project Conditions are below the CO air quality standard. The same conclusion applies for Alternative D and Alternative E because they would produce fewer emissions than the Proposed Project evaluated in the 2001 NIGC EA.

Mitigation 5.5-6 Cumulative Carbon Monoxide Impacts

None required.

Impact 5.5-7 Project Specific Ozone Precursor Emissions

The Court of Appeal directed Caltrans to disclose and analyze the interchange project's specific traffic-related ROG and NOx emissions (or estimates), its contribution to the regional emissions budgets, and whether these emissions and contributions are significant. Decision at 57-58. This Section 5.5-7 provides the required analysis.

Because Caltrans lacks jurisdiction over the Shingle Springs Rancheria, and therefore over the hotel/casino project, the 2002 Final EIR considered the impacts of the traffic generated by the hotel/casino and all other land uses on the Rancheria as indirect impacts of the interchange project (acknowledging that all hotel/casino traffic would pass through the interchange). Likewise, this Supplemental EIR analyzes the impacts of all of the traffic generated on the Rancheria that passes through the interchange, including the hotel/casino traffic, as indirect impacts.

5.5-7.1 Estimates of the Interchange Project's Specific Traffic-Related ROG and NOx Emissions

In response to the Court of Appeal decision, Caltrans has estimated the interchange project's specific traffic-related ozone precursor (ROG and NOx) emissions. (As explained above, this includes all ozone precursor emissions of the hotel/casino project.)

The calculation of ozone precursor emissions for the 2002 Final EIR was done using Version 7F of the computer modeling software packages known as EMFAC and BURDEN. Specifically, EMFAC 7F was used to generate data for the regional transportation conformity analysis contained in the 2002 Final EIR. EMFAC is used to estimate emission rates, which are then input to BURDEN, which calculates emissions estimates. BURDEN is commonly used to estimate regional emissions, which are then compared to the regional motor-vehicle emissions budgets in the State Implementation Plan to determine conformity with that Plan. BURDEN is also used by the California Air Resources Board and the Sacramento Area Council of Governments to calculate motor-vehicle emission budgets. Because EMFAC is an input to BURDEN, the versions of BURDEN and EMFAC correspond to one another.

Due to its direct compatibility and relationship to EMFAC, and the fact that it is used for regional conformity analyses in many areas of California, including the Sacramento non-attainment area (which includes El Dorado County), Caltrans determined that BURDEN is the appropriate tool for providing the project-specific emissions estimates the Court of Appeal required. Also Burden is geared toward roadway on transportation projects, and is well-suited for estimating ozone precursor emissions for a single project.

During the prior proceedings on the 2002 Final EIR, El Dorado County and Voices for Rural Living (VRL) claimed that the analysis should have been done using Version 2002 of EMFAC (EMFAC 2002). Both the trial court and the Court of Appeal rejected that contention and upheld the use of Version 7F. El Dorado County and VRL also claimed that Caltrans overestimated "pass-by" trips, and that this artificially reduced the amount of traffic, and therefore the ozone precursor emissions associated with the interchange.[1] The trial court and the Court of Appeal rejected those claims. Nonetheless, to be overly conservative, Caltrans has calculated estimates of the interchange project's specific traffic-related ROG and NOx emissions using both BURDEN 7F and BURDEN 2002, and with and without credit for pass-by trips. **Tables 5.5-6** and **5.5-7** below set forth those project-specific emission estimates for the interchange project.

[1] Pass-by trips are trips that are already passing by the project location and are diverted to the project. In other words, they are existing trips that now visit the project, as opposed to entirely new trips that the project may generate.

5.5-7.2 Contribution of interchange project specific traffic-related ROG and NOx emissions to regional emissions budget

The Court of Appeal directed Caltrans to compare its estimates of the interchange project's specific traffic-related ROG and NOx emissions to the applicable motor-vehicle emissions budgets and to disclose the percentage of those budgets that the project-specific emissions constitute. Those percentages are also set forth in **Tables 5.5-6** and **5.5-7** below. In all cases, they are less than one-half of one percent.

5.5-7.3 Significance of interchange project specific traffic-related ROG and NOx emissions

The significance of ozone precursor emissions is best determined on a regional basis, due to the manner in which ozone is formed. Specifically, ground-level ozone is produced in complex chemical reactions when its precursors, ROG and NOx, react in the presence of sunlight. Ozone is formed over time and distance in a region depending upon the nature and extent of the precursor emissions, the geography over which they travel, and the particular weather conditions. The chemical reactions that create ozone take place while the wind is blowing the pollutants through the air, which means that ozone can be more or less severe many miles away from the source of precursor emissions than it is at the source, and that ozone impacts from the same emissions sources vary infinitely with changing weather conditions. Further, because not all car trips associated with the planned casino/hotel would be new trips, the project would redistribute ozone precursors, rather than simply generating them at the interchange, and those precursors will then move and mix over time and distance before forming ozone, depending upon weather conditions.

Consistent with the foregoing, all recognized measures of the significance of ozone precursor emissions are regional measures. Specifically with respect to CEQA, a regional methodology is most appropriate because the measures of air quality impacts set forth under Appendix G to the CEQA Guidelines relate to existing air quality regulatory standards. For ozone, all of these standards are regional. Therefore, Caltrans believes that the regional conformity analysis in Section 5.5-4 of the 2002 Final EIR is the best and most meaningful methodology to evaluate the interchange project's potential ozone

TABLE 5.5-6. ESTIMATES OF INTERCHANGE PROJECT SPECIFIC TRAFFIC BASED ROG AND NOx EMISSIONS CALCULATED USING BURDEN 7F

Emissions Category	With No Credit for Pass-By Trips	With Credit for Pass-By Trips
Reactive Organic Gas Emissions		
Project related emissions (in tons per day)	0.11	0.09
Emissions budget (in tons per day)	31.32	31.32
Percent of emissions budget	0.35%	0.29%
Nitrogen Oxides Emissions		
Project related emissions (in tons per day)	0.23	0.18
Emissions budget (in tons per day)	61.35	61.35
Percent of emissions budget	0.37%	0.29%
NOTE: All BURDEN 7F emission estimates are for project-opening year 2009		

TABLE 5.5-7. ESTIMATES OF INTERCHANGES PROJECT SPECIFIC TRAFFIC BASED ROG and NOx EMISSIONS CALCULATED USING BURDEN 2002

Emissions Category	With No Credit for Pass-By Trips	With Credit for Pass-By Trips
Reactive Organic Gas Emissions		
Project related emissions (in tons per day)	0.08	0.06
Emissions budget (in tons per day)	41	41
Percent of emissions budget	0.20%	0.15%
Nitrogen Oxides Emissions		
Project related emissions (in tons per day)	0.27	0.21
Emissions budget (in tons per day)	75	75
Percent of emissions budget	0.36%	0.28%
NOTE: All BURDEN 2002 emission estimates are for project-opening year 2009		

impacts. The project-specific emissions have been estimated and disclosed in this Supplemental EIR, however, in response to the Court of Appeal's ruling.

5.5-7.4 Determination of Appropriate Significance Criteria

Caltrans has determined that the appropriate significance criteria for measuring the project-specific traffic-related ozone precursor emissions is a contribution of greater than one percent of the motor-vehicle emissions budget for the particular precursor in the air quality region.

Given the unprecedented nature of this analysis, Caltrans had to determine an appropriate measure of the potential significance of these project-specific ozone precursor emissions. Caltrans researched air quality statutes, regulations and activities at both the federal and state level to find a relevant comparison to assess the potential significance of the project-specific ozone precursor emissions. Caltrans determined that the following analysis by the United States Environmental Protection Agency ("US EPA") assessing the significance of ozone precursor emissions on downwind regions provides the best measure of project-specific ozone impacts under these circumstances.

In 1998 and again in 2005, US EPA adopted regulations requiring reductions of NOx emissions as a precursor to ozone based upon a determination of "significant contributions" from sources in upwind states to nonattainment in downwind states. In the first of these two rulemakings, the "NOx SIP Call" (63 Fed.Reg. 57355 (October 27, 1998)), US EPA established criteria that it used to make its findings of a "significant" contribution to nonattainment.

In promulgating the NOx SIP Call as a methodology to evaluate significant contributions of ozone precursors, US EPA considered contributions in terms of parts per billion (ppb) ozone attributable to upwind areas during exceedances at a given monitor based upon two different air quality modeling platforms, calculated the percentage contribution resulting from these mass emissions, and considered the frequency with which upwind areas contributed to elevated downwind monitored levels of ozone. US EPA found the lowest levels of notable contribution to be 2 ppb. *See* 63 Fed.Reg. at 57392-98.

In the second rulemaking, US EPA promulgated the Clean Air Interstate Rule ("CAIR") at 70 Fed.Reg. 25161 (May 12, 2005). Relying on the analytical criteria adopted in the NOx SIP call, the CAIR set forth criteria to determine the significance of contributions to downwind nonattainment from upwind states. In the CAIR, US EPA determined that a contribution to downwind nonattainment is significant if it is at least 2 ppb or greater than 1 percent of the emissions under the applicable ozone standard. 70 Fed.Reg. at 25175.

Following US EPA's NOx SIP Call and CAIR methodologies, Caltrans determined that a contribution of more than 1 percent of the emissions budget is an appropriate metric for determining the significance of the project's ozone precursor emissions. The alternative measure, 2 ppb, is equal to 1.6 percent of

the 1-hour ozone standard, applicable at the time that the analyses for the project were performed and to which EMFAC 7F or BURDEN 7F applied, and 2.4 percent of the 8-hour ozone standard, which is applicable now and to which EMFAC 2002 or BURDEN 2002 applies. Given these numbers and the US EPA methodology, using 1 percent as a measure of potential significance is an appropriate and conservative approach.

The application of this 1-percent standard to the emissions estimates developed for the interchange project's traffic-related ROG and NOx emissions in **Tables 5.5-8** and **5.5-9**, below, demonstrates that those emissions are not significant. **Tables 5.5-8** and **5.5-9** also demonstrate that the emissions calculated using BURDEN 2002 are lower as a percentage of the emissions budget than emissions calculated using BURDEN 7F. BURDEN 2002 (lower emissions) is the version for which El Dorado County and VRL previously advocated, whereas BURDEN 7F (higher emissions) is the version Caltrans used in preparing the 2002 Final EIR for the interchange project.

Based on the foregoing facts regarding ozone formation and analysis, Caltrans has concluded that the required project-specific analysis is unprecedented and is of limited value in understanding ozone impacts and their relationship to applicable regulatory standards. Accordingly, the discussion of the significance of project-specific ozone emissions for the interchange project, and the metric used in arriving at those significance conclusions, is not intended to serve as precedent for any future analyses of other transportation projects.

TABLE 5.5-8. SIGNIFICANCE OF INTERCHANGE PROJECT SPECIFIC TRAFFIC-RELATED ROG AND NOX EMISSIONS (TONS PER DAY) WITH NO CREDIT FOR PASS-BY TRIPS

Model	Interchange Emissions	Emissions Budget	Percentage of Budget	Project Level Significance	Significant?
BURDEN 7F				1%	
ROG	0.11	31.32	0.35%		No
NOx	0.23	61.35	0.37%		No
BURDEN 2002				1%	
ROG	0.08	41.00	0.20%		No
NOx	0.27	75.00	0.36%		No

TABLE 5.5-9. SIGNIFICANCE OF INTERCHANGE PROJECT SPECIFIC TRAFFIC-RELATED ROG AND NOX EMISSIONS (TONS PER DAY) WITH CREDIT FOR PASS-BY TRIPS

Model	Interchange Emissions	Emissions Budget	Percentage of Budget	Project Level Significance	Significant?
BURDEN 7F				1%	
ROG	0.09	31.32	0.29%		No
NOx	0.18	61.35	0.29%		No
BURDEN 2002				1%	
ROG	0.06	41.00	0.15%		No
NOx	0.21	75.00	0.28%		No

5.5-7.5 Significance of interchange project specific traffic-related ROG and NOx emissions based on comparison against other projects in the region

The Court of Appeal also suggested that Caltrans might measure the potential significance of the interchange project's specific traffic-related ROG and NOx emissions by comparing those to the ROG and NOx emissions of another project in the regional transportation conformity analysis. Decision at 57-58. Without project-specific information about each project in the regional transportation conformity analysis, Caltrans cannot assess the specific ROG and NOx emissions of these projects. Nonetheless, Caltrans has sought a reasonable and appropriate comparison for the interchange/hotel-casino's specific traffic-related ROG and NOx emissions in El Dorado County's analysis of the land uses that will generate the majority of the traffic at the Missouri Flat interchange, which is on Highway 50 near the site of the proposed interchange and casino/hotel.

Tables 4.5-8 through 4.5-10 of El Dorado County's EIR for the "Missouri Flat Area MC&FP and Sundance Plaza and El Dorado Villages Shopping Center Projects," dated April 1998, provide the "Predicted Operational Mobile Source Emissions" for that project. Those emissions are presented in **Table 5.5-10** below, along with the emissions from the interchange project.

This comparison demonstrates that El Dorado County's Missouri Flat Area projects have substantially greater mobile source emissions than the interchange and proposed casino/hotel. In one instance, those emissions are triple the estimated emissions from the interchange. Nonetheless, the County concluded that traffic-related emissions of the Missouri Flat Area projects

were not significant because they did not cause exceedances of the regional emissions budgets.[2]

TABLE 5.5-10. COMPARISON OF INTERCHANGE PROJECT SPECIFIC TRAFFIC-RELATED ROG AND NOX EMISSIONS WITH THE MISSOURI FLAT AREA PROJECT ROG AND NOX EMISSIONS (TONS PER DAY)

Model	Interchange Emissions (with no credit for pass-by trips)	Interchange Emissions (with credit for pass-by trips)	Missouri Flat Emissions
BURDEN 7F			URBEMIS 5[3]
ROG	0.11	0.09	0.27
NOx	0.23	0.18	0.49

Comparing the impacts of two projects is not a recognized methodology for determining significance under CEQA because no one project provides a meaningful measuring point as to effects on the environment overall. The Court of Appeal listed this as a comparison of interest, however, thus it is provided here. While it may not be useful in determining significance under CEQA, it does demonstrate that the interchange project is far from the largest contributor of ozone precursors among recently proposed major projects in the region.

[2] In its EIR for the Missouri Flat interchange, El Dorado County concluded that the interchange itself did not have significant operational ozone impacts and failed to acknowledge the emissions generated by these land uses, regardless of the fact that it would carry significant traffic to and from these land uses. Conversely, both the 2002 Final EIR and this Supplement EIR acknowledge that the Shingle Springs interchange will carry and facilitate traffic generated by the casino and consider that traffic and its ozone precursor emissions to be impacts of the interchange itself. This procedure results in the fullest possible disclosure of information.

[3] El Dorado County's Missouri Flat EIR uses URBEMIS 5, which uses the emissions factor program EMFAC 7F. Therefore, the Missouri Flat emissions are compared to the interchange project emissions estimated using BURDEN 7F. URBEMIS 5 and BURDEN 7F are different software programs, and are oriented toward different types of projects (URBEMIS toward land use projects and BURDEN toward transportation or roadway projects), but they serve a similar purpose and, provided with the same input values, would typically calculate similar emissions estimates.

5.6 Noise and Vibration

5.6.4 Impacts and Mitigation Measures

Impact/Mitigation

Impact 5.6-1 Traffic Noise Impact (Existing and Cumulative)

AD, AE The reduced size of the hotel and casino under Alternative D, and the casino under Alternative E, results in reduced traffic when compared with traffic assumed for the interchange project. The 2002 Final EIR predicted changes in traffic noise levels associated with the project to be about 1 dBA at select locations as compared to future No Project/No Action conditions, which is less than the significance threshold. Given the reduction in traffic resulting from Alternative D and Alternative E as compared to the proposed project, Alternative D and Alternative E also would not result in a significant noise impact.

Mitigation 5.6-1 Traffic Noise Impact (Existing and Cumulative)

None required.

Impact 5.6-2 Construction Equipment Noise

AD, AE The interchange-related construction equipment needed during construction activities for Alternative D and Alternative E would be the same as identified for the interchange project. Activities under Alternative D and Alternative E would be expected to generate temporary noise levels similar to those identified for the interchange project. Noise levels resulting from potential blasting during construction would be considered a significant impact if not properly mitigated. With the mitigation proposed in the 2002 Final EIR, this impact would be reduced to a less-than-significant level for Alternative D and Alternative E.

Casino/hotel construction and operational noise impacts resulting from Alternative D and Alternative E would be less than that identified for the Proposed Project analyzed in the 2001 NIGC EA because of the reduced scale of development under both alternatives. Construction-related noise impacts associated with construction of the on-Rancheria facilities were less-than-significant with the Proposed Project, therefore they would also be less-than-significant for Alternatives D and E.

Mitigation 5.6-2 Construction Equipment Noise

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

5.7 Biological Resources

5.7.4 Impacts and Mitigation Measures

Impact/ Mitigation

Impact 5.7-1 Impacts to Upland Vegetation

AD, AE As with Alternative B, construction of the interchange under Alternative D or Alternative E could result in the removal of up to 1.1 acres of mixed oak woodland. This would be considered a significant impact. Accordingly, Mitigation Measure 5.7-1 identified in the 2002 Final EIR would also apply to Alternative D and Alternative E. With implementation of that mitigation measure, the impact of either alternative on upland vegetation would be less than significant.

The 2001 NIGC EA determined that permanent impacts to California annual grassland would be less than significant, but that some re-vegetation may be necessary to prevent erosion of soils previously covered in grassland vegetation and exposed due to construction of the Proposed Project. The development footprint of the hotel and casino under Alternative D and casino under Alternative E would be no greater than for the Proposed Project. Therefore, vegetation impacts would be the same as or less than previously identified for the Proposed Project in the 2001 NIGC EA, and therefore would also be less-than-significant.

Mitigation 5.7-1 Impacts to Upland Vegetation

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.7-2 Impacts to Non-Special Status Species

AD, AE Construction of the interchange and casino complex would result in short-term impacts to terrestrial wildlife over the relatively small area of interchange construction. There is a regional abundance of common wildlife species. Accordingly, construction of the interchange and casino complex would result in less-than-significant impacts to common wildlife. The impact of Alternative D and Alternative E in this regard would be the same as for the Proposed Project

because the same interchange would be constructed under those alternatives. Additionally, the casino complex would not develop more acreage than that previously analyzed in the 2001 NIGC EA. Therefore, on-Rancheria development will not create a greater area of impact affecting a greater number of species than previously analyzed, and, as with the Proposed Project, this impact will be less than significant.

Mitigation 5.7-2 Impacts to Non-Special Status Species

None required.

Impact 5.7-3 Impacts to Special-Status Species

AD, AE As is the case with the interchange project, development of the interchange under Alternative D and Alternative E could impact plant and animal special-status species within the project area. No special-status species were observed in the project area, however. Accordingly, this was determined to be a less-than-significant impact. Nevertheless, mitigation measures were recommended and incorporated into the interchange project to reduce or avoid the potential that special-status species could be in the project area and could be affected by the construction of the interchange. Because the same interchange would be constructed for Alternatives D and E, the same mitigation measures would be imposed and this impact would also be less-than-significant.

The 2001 NIGC EA found that casino and hotel development under the Proposed Project would not significantly impact California red-legged frog dispersal habitat, valley elderberry longhorn beetle, or Layne's butterweed. Because Alternatives D and E would involve less construction within the same area or less area, those alternatives would also not significantly impact these species or their habitat.

Mitigation 5.7-3 Impacts to Special Status Species

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.7-4 Impact to Wetlands/Waters of the United States

AD, AE Construction of the interchange under Alternative D and Alternative E would result in the same permanent and temporary impacts to wetlands/waters of the

U.S. described under AB for the Flyover interchange. These impacts are considered significant without mitigation. Compliance with the NPDES permit conditions required by the NIGC would reduce effects to wetlands to less than significant. These same measures would also apply to Alternatives D and E, and therefore those alternatives would also result in less-than-significant impacts to wetlands and waters of the U.S.

The on-Rancheria development footprint would be no larger than identified for the proposed hotel/casino complex, and under Alternative E would be substantially smaller. No waters of the U.S. would be directly affected (i.e., filled) by the Proposed Project. Because Alternative D and Alternative E would be constructed in the same area or a smaller area, those alternatives also would not result in significant impacts to wetlands or other waters of the United States.

Mitigation 5.7-4 Impact to Wetlands/Waters of the United States

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.7-5 Cumulative Impact

AD, AE The 2002 Final EIR concluded that a less-than-significant impact would result because of the relatively small area that would be impacted by the project and because identified mitigation measures would reduce what impacts did occur from the development. As with the interchange project, development of the interchange under both Alternative D and Alternative E could contribute to cumulative effects through reducing the amount of oak woodland habitat in the Sierra foothills. However, also like the interchange project, these alternatives are not expected to contribute to significant cumulative impacts because of the relatively small area that would be impacted and because of the mitigation measures that will be implemented. With that mitigation, these effects would be less-than-significant.

Implementation of either Alternative D or Alternative E also has the potential to contribute to the loss of habitat on the Rancheria, although that contribution would be no greater than for the Proposed Project. With the implementation of Mitigation Measure 5.7-4, this contribution to the cumulative effect would be reduced to a less than significant level.

Mitigation 5.7-5 Cumulative Impact

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

5.8 Visual Resources

5.8.4 Impacts and Mitigation Measures

Impact/ Mitigation

Impact 5.8-1 Impacts to Visual Resources

AD, AE Impacts to visual resources resulting from construction of the interchange were determined to be less-than-significant. As noted in the Regulatory Setting discussion and in the impact discussion section for the Proposed Project, the site is not located within a state scenic highway; therefore, the impact of the interchange is less-than-significant. Alternatives D and E would require the same interchange, therefore they would also result in less-than-significant impacts.

The Proposed Project analyzed in the 2001 NIGC EA includes a hotel structure that is 5 stories tall and 60 feet in height above its base elevation. The casino (including parking structure) is proposed to be approximately 115 feet above its base elevation (northeast view). Given these heights, the southwest off-Rancheria view of the casino would be blocked by both the hill and undisturbed oak woodland on the western edge of the development bordering Koto Road.

Views of the casino and hotel from northeast of the Rancheria would be blocked by a wooded ridge within the Rancheria that has a peak elevation of approximately 1,560 feet above sea level, 35 feet above the maximum elevation of the casino.

Views of the development to the south of the Rancheria would be blocked by an on-Rancheria hill with a peak of 1,603 feet asl, 48 feet above the peak of the hotel, and the wooded ridge continuing southeastward from the hill to the cutbank on the north side of Highway 50, which has a face of approximately 50 feet in height.

Views of the hotel and casino from north of the Rancheria would be partially blocked by woodland on the northwest corner of the development. The casino may be visible only to parcels due north of the west end of the hotel and casino, if those views are not interrupted by trees, which they likely would be,

given the native oak woodland that will be left on the northwest corner of the project site.

The height of development under Alternative D and E would be less than anticipated for the Proposed Project. The reduced square footage for the casino under both Alternative D and E would result in a shorter building when compared with the Proposed Project in the 2001 NIGC EA, and therefore a reduced visual impact as compared to the Proposed Project. Likewise, the reduced number of rooms for the hotel in Alternative D would result in lower height for that facility. (Under Alternative E, there would be no hotel.) The limited view of the proposed structures from off-Rancheria locations coupled with the screen of trees retained along the perimeter of the development results in a less-than-significant visual effect for Alternatives D and E.

Mitigation 5.8-1 Impacts to Visual Resources

None required.

Impact 5.8-2 Cumulative Impacts to Visual Resources

AD, AE The roadway network surrounding the interchange project site is assumed to remain the same for cumulative conditions as currently exists for existing conditions. There are no specific programmed improvements for Highway 50 available to incorporate into the cumulative conditions; therefore, a 4-lane facility is assumed for cumulative conditions in the vicinity of the project site. Alternatives D and E will not alter cumulative conditions for visual resources along the highway. Therefore, these alternatives will result in less-than-significant visual impacts.

Mitigation 5.8-2 Cumulative Impacts to Visual Resources

None required.

5.9 Socioeconomics

5.9.4 Impacts and Mitigation Measures

Impact/ Mitigation

Impact 5.9-1 Socioeconomic Character of Surrounding Area

AD, AE As with Alternative B, construction of the interchange under Alternative D or E would not result in the removal of businesses or represent a substantial impairment to the economic viability of an existing commercial district. The 2002 Final EIR concluded that the construction of an interchange at the project site will not result in a significant impact to the socioeconomic character of the surrounding area. The same conclusion is reached for Alternatives D and E.

Both Alternative D and E would result in a smaller casino complex than the Proposed Project analyzed in the 2001 NIGC EA. As such, the construction and operational revenue stream would be less than for the Proposed Project. This reduced revenue stream is not expected to significantly negatively impact the surrounding area because there will still be some inflow of revenue and jobs that currently does not exist. No significant environmental effects would result from the reduced revenue stream, however the positive effect of increased revenues and jobs in the area would be less than for the Proposed Project. In any case, this impact for Alternatives D and E would be less-than-significant.

Mitigation 5.9-1 Socioeconomic Character of Surrounding Area

None required.

Impact 5.9-2 Displacement of Persons or Housing

AD, AE The interchange would be constructed within existing Caltrans right-of-way and a five-acre parcel connecting the Shingle Springs Rancheria to Highway 50. The access road would cross under Artesia Road, which currently provides access to two residential parcels east of the proposed roadway. The proposed undercrossing would ensure that access to the two residential parcels is maintained. The interchange design is not expected to result in a significant impact to the surrounding community with regard to the

displacement of persons or housing. The design would not change under Alternative D and E.

Alternatives D and E would be constructed in an area of the Rancheria that does not have existing development. Therefore, the construction of these facilities would not displace people or housing. Accordingly, neither Alternatives D or E would result in a significant impact with respect to displacement of persons and housing.

Mitigation 5.9-2 Displacement of Persons or Housing

None required.

Impact 5.9-3 Minority and/or Low-Income Populations

AD, AE As stated previously for Alternative B, the only low-income and minority population that has been identified is the Shingle Springs Rancheria community itself, which would directly benefit from improved emergency and commercial access the interchange project would provide. This would be substantially the same for Alternatives D and E as for Alternative B.

As with the Proposed Project in the 2001 NIGC EA, the smaller casino and hotel under Alternative D and the smaller casino and absent hotel under Alternative E would not result in a significant negative impact to minority and/or low income populations.

Mitigation 5.9-3 Minority and/or Low-Income Populations

None required.

Impact 5.9-4 Neighborhood Impacts

AD, AE There are two potentially affected neighborhoods or residential subdivisions adjacent to the Shingle Springs Rancheria within the study area. Those neighborhoods are “Grassy Run” to the northeast and “Buckeye Rancheros” to the west/southwest of the Rancheria. The design and location of the interchange assures that neither “Grassy Run” nor “Buckeye Rancheros” neighborhoods would be physically divided. This is the same under Alternatives D and E as under the proposed interchange project.

The casino and hotel under Alternative D and the casino under Alternative E would be located entirely on the existing Rancheria; therefore, those facilities would not divide established neighborhoods, and the impact in this regard would be the less than significant, as it is for the Proposed Project.

Mitigation 5.9-4 Neighborhood Impacts

None required.

Impact 5.9-5 Cumulative Socio-Economic Impacts

AD, AE The 2001 NIGC EA and the 2002 Final EIR concluded that the casino/hotel project and the interchange project, respectively, would not contribute to significant cumulative effects associated with the displacement of persons or housing. Because Alternatives D and E would result in less development on the Rancheria and the construction of the same interchange as under Alternative B, these alternatives, considered together with cumulative growth, would not result in significant cumulative displacement of people or housing.

The same is true for impacts to the socioeconomic character of the surrounding area. Likewise, the proposed interchange will not prevent people from accessing their properties. Since there are no transportation related cumulative development projects to consider for the project area, no cumulative effects will be experienced. The increased traffic along the roadway network, resulting from cumulative growth, will not prevent the use of adjacent property. Lastly, the proposed interchange would not result in a cumulative effect to minority and/or low income populations. Accordingly, these impacts for Alternatives D and E would be less than significant.

Mitigation 5.9-5 Cumulative Socio-Economic Impacts

None required.

5.10 Cultural Resources

5.10.4 Impacts and Mitigation Measures

Impact/ Mitigation

Impact 5.10-1 Discovery of Prehistoric, Archaeological and Paleontological Resources

AD, AE As is the case with Alternative B, the construction of the interchange under Alternative D or E has the potential to uncover undiscovered prehistoric, archaeological, or paleontological resources. This is a potentially significant impact. The potential for construction of the interchange to result in this impact is the same for Alternative D and E as for Alternative B. This is mitigated to a less-than-significant level with the same mitigation measures proposed for the interchange project.

The previous on-Rancheria analysis conducted for the Proposed Project analyzed in the 2001 NIGC EA found that prehistoric, archaeological and paleontological resources were not present on the project site during both the records search and the field survey. The area of effect for both Alternatives D and E would be equal to or less than the area of effect previously evaluated. Therefore, on-Rancheria development under both Alternative D and E is not expected to impact prehistoric, archaeological and/or paleontological resources. Nonetheless, the measures proposed to further mitigate this impact to a less-than-significant level for the Proposed Project would be recommended for Alternative D and E as well.

Mitigation 5.10-1 Discovery of Prehistoric, Archaeological and Paleontological Resources

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.10-2 Disturbance to Historic Cultural Material

AD, AE The construction of the interchange under Alternative D and E would have the same impacts as identified for Alternative B. Accordingly, as with the interchange project, development of Alternative D or Alternative E is not expected to result in any significant impact to historic cultural material.

The previous on-Rancheria analysis conducted for the Proposed Project in the 2001 NIGC EA found negative results during both the records search and the field survey. The area of effect for both Alternative D and E is equal to or less than that area previously evaluated. Therefore, on-Rancheria development under both Alternative D and Alternative E is not expected to have a significant impact historic cultural material.

Mitigation 5.10-2 Disturbance to Historic Cultural Material

None required.

Impact 5.10-3 Cumulative Cultural Resource Impacts

AD, AE The 2002 Final EIR's analysis of the proposed interchange concluded that no prehistoric archaeological or historic period sites or features have been formally recorded within or adjacent to the interchange project area. Additionally, no evidence of prehistoric presence was identified during the survey. Lastly, the analysis concluded that the project would not result in an impact to historic cultural material. Because they would involve construction of the same interchange, Alternative D and Alternative E would also not result in a significant impact to historic cultural material. Therefore, the only effect potentially associated with these alternatives is the loss of undiscovered artifacts. Implementation of Mitigation Measure 5.10-1(A) in the 2002 Final EIR would ensure that neither Alternative D or E would result in a cumulatively considerable impact to cultural resources**.**

As explained above, the 2001 NIGC EA found that the site of the Proposed Project was not a significant prehistoric site. Accordingly, it also found that construction of the Proposed Project would not have a significant cumulative impact on cultural resources.

Mitigation 5.10-3 Cumulative Cultural Resource Impacts

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

5.11 Hazardous Materials

5.11.4 Impacts And Mitigation Measures

Impact/ Mitigation

Impact 5.11-1 Exposure of Individuals to Contaminated Soil and/or Groundwater

AD, AE The 2002 Final EIR concluded that the potential for exposure of individuals to contaminated soil and/or groundwater during construction of the interchange is potentially significant. Likewise, development of the interchange under Alternative D or Alternative E could potentially encounter contaminated soil and groundwater, which without proper precautions, could result in the exposure of construction workers and consequently result in associated significant adverse health effects. Accordingly, the same mitigation measures recommended for the interchange project are recommended for Alternative D and Alternative E. The implementation of these measures would reduce this potential impact to a less-than-significant level.

The previous on-Rancheria analysis conducted for the Proposed Project analyzed in the 2001 NIGC EA found that there was no reportable hazardous materials contamination at or near the project site. Therefore, construction of the hotel/casino would result in less-than-significant impacts with respect to exposure of individuals to contaminated soil and/or groundwater. The area of impact for both Alternative D and Alternative E is no greater than for the Proposed Project analyzed in the 2001 NIGC EA. Therefore, a less-than-significant impact would also result under both Alternative D and E.

Mitigation 5.11-1 Exposure of Individuals to Contaminated Soil and/or Groundwater

No additional mitigation is required beyond that recommended in the 2002 Final EIR and incorporated into the hotel/casino and interchange projects.

Impact 5.11-2 Risk of Accidental Release of Hazardous Materials

AD, AE The risk of accidental release of hazardous materials under Alternative D or Alternative E during interchange construction would be the same as identified for Alternative B. Therefore, proper precautions should be taken to minimize risks to human health or the environment during construction of the interchange under

these alternatives. With the implementation of this mitigation measure, which is also recommended for Alternative B, neither Alternative D or Alternative E would result in a potentially significant impact regarding the risk of accidental release of hazardous materials.

The operation of the casino and/or hotel facilities may involve use and storage of hazardous materials. The use and storage of hazardous materials will be required to comply with the provisions of the Tribal/State Compact. With this mitigation, a less-than-significant impact is expected. Given their reduced footprint, Alternatives D and E would be expected to result in less risk from the use and storage of hazardous materials. Nonetheless, this mitigation would also apply to Alternatives D and E, and would similarly reduce the potential impacts of those alternatives to a less-than-significant level.

Mitigation 5.11-2 Risk of Accidental Release of Hazardous Materials

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.11-3 Exposure of Individuals to Asbestos Containing Dust

AD, AE The potential for exposure of individuals to asbestos containing dust during construction of the interchange and/or casino/hotel facilities is the same for Alternatives D and E as identified for Alternative B in the 2002 Final EIR and for the Proposed Project in the 2001 NIGC EA. Therefore, without mitigation the interchange may result in a significant impact to human health and the environment. With the implementation of the mitigation recommended in the 2002 Final EIR and the 2001 NIGC EA, however, the potential impacts of Alternatives D and E would be reduced to a less-than-significant level.

Mitigation 5.11-3 Exposure of Individuals to Asbestos Containing Dust

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.11-4 Exposure of Individuals to Wildland Fires

AD, AE The potential exposure of individuals to wildland fires during construction of the interchange under Alternative D or Alternative E would be the same as identified

in the 2002 Final EIR for Alternative B. Therefore, without mitigation these alternatives could result in a significant impact to human health and the environment. The 2002 Final EIR includes mitigation that reduces this impact to a less-than-significant level. With the implementation of this same mitigation, Alternative D and Alternative E would have less-than-significant impacts with respect to wildland fires.

Construction of the casino complex under Alternative D or Alternative E would also result in an increased exposure of individuals to wildland fires. However, the 2001 NIGC EA proposed mitigation that would reduce of the potential on-Rancheria wildfire effects to a less-than-significant level. There measures would also apply to Alternative D and Alternative E, and would reduce the potential impacts of those alternatives on wildland fires to a less-than-significant level.

Mitigation 5.11-4 Exposure of Individuals to Wildland Fires

No additional mitigation is required beyond that recommended in the 2001 NIGC EA and the 2002 Final EIR and incorporated into the casino/hotel and interchange projects.

Impact 5.11-5 Cumulative Impacts to Hazardous Materials

AD, AE The 2001 NIGC EA and the 2002 Final EIR identified no potentially significant cumulative impacts related to hazardous materials. Therefore, Alternative D and Alternative E also would not make a considerable contribution to cumulative impacts concerning hazardous materials and also would not result in a significant cumulative impact in this regard.

Mitigation 5.11-5 Cumulative Impacts to Hazardous Materials

None required.

5.12 Water Quality

5.12.4 Impacts and Mitigation Measures

Impact/ Mitigation

Impact 5.12-1 Short-term Impacts on Water Quality from Construction

AD, AE Construction of the interchange as proposed, and under Alternative D or Alternative E, would involve soil-disturbing activities such as vegetation removal, grading, and excavation which may result in soil erosion and sediment discharge into surface waters, increased turbidity, and downstream sediment deposition. The resultant short-term impacts on water quality resulting from construction of the interchange under these alternatives would be the same as described for AB. As is the case with the interchange project, Alternative D and Alternative E would comply with all requirements and guidelines associated with applicable NPDES permits. A SWPPP would be created by the contractor and implemented under the Caltrans Construction SWMP to outline BMPs that minimize impacts to water quality. Therefore, interchange construction under Alternative D and Alternative E would result in a less than significant impact.

All on-Rancheria construction activities associated with Alternative D and Alternative E would be undertaken outside of known watercourses and water features. As described for the Proposed Project in the 2001 NIGC EA, the Tribe would comply with El Dorado County's Grading, Erosion and Sediment Control Ordinance, and adhere to the provisions of the Clean Water Act. The Tribe would submit an application for a National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities issued by the EPA (Region IX) and adhere to all guidelines therein. As required by the Permit, the Tribe would create and implement a Storm Water Pollution Prevention Program (SWPPP), which outlines Best Management Practices (BMPs). These measures would reduce all potential impacts of Alternatives D and E in this regard to a less-than-significant level.

Mitigation 5.12-1 Short-term Impacts on Water Quality from Construction

No additional mitigation is required beyond that recommended in the 2002 Final EIR and the 2001 NIGC EA and incorporated into the hotel/casino and interchange projects.

Impact 5.12-2 Impacts from Erosion Related to Stream or River Alteration

AD,AE As with the Proposed Project, construction of the interchange under Alternative D or Alternative E would not result in significant alterations to any jurisdictional waterbody or channel. The impact identified under Alternative B to the 75 square foot (7 square meter) portion of one of the ephemeral drainages would be the same under both Alternative D and Alternative E; however, mitigation would reduce the impact to a less-than-significant level.

As with the Proposed Project, all on-Rancheria construction activities associated with Alternative D and Alternative E would be undertaken outside of known watercourses and water features. In addition, the Tribe would submit an application for a National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities issued by the EPA (Region IX) and adhere to all guidelines therein.

Mitigation 5.12-2 Impacts from Erosion Related to Stream or River Alteration

No additional mitigation is required beyond that recommended in the 2002 Final EIR and the 2001 NIGC EA and incorporated into the hotel/casino and interchange projects.

Impact 5.12-3 Impacts to Groundwater Quality

AD,AE Alternative D and Alternative E would have the same or less impact to groundwater quality by interceptions of groundwater flow through cuts to the native topography and the use of groundwater during construction (none) as the construction of the interchange or of the proposed hotel/casino project, which are not expected to result significant impacts in this regard. Accordingly, neither Alternative D or Alternative E would result in significant impacts to groundwater quality.

Mitigation 5.12-3 Impacts to Groundwater Quality

None required.

Impact 5.12-4 Cumulative Impacts to Water Quality

AD,AE Cumulative impacts associated with the construction of the interchange and the hotel/casino project under Alternative D or Alternative E would be the same as identified for the interchange project. The interchange project would fall under the Caltrans statewide NPDES permit (CAS000003, Order No. 99-06-DWQ) issued by the RWQCB. The SWMP prepared pursuant to this permit outlines methodologies for selection and implementation of BMPs to mitigate adverse impacts to water quality, and the NPDES permit requires the implementation of appropriate BMPs. These BMPs would mitigate impacts to water quality to a less-than-significant level. Similarly, the detention facility and series of oil/grease sediment traps designed into the drainage inlets/outlets would ensure that on-Rancheria development does not make a cumulatively considerable contribution to potentially significant cumulative water quality impacts.

Mitigation 5.12-4 Cumulative Impacts on Water Quality

No additional mitigation is required beyond that recommended in the 2002 Final EIR and the 2001 NIGC EA and incorporated into the hotel/casino and interchange projects.

5.13 Drainage

5.13.3 Impacts and Mitigation Measures

Impact/ Mitigation

Impact 5.13-1 Peak Flow

AD, AE Increased drainage would result from the over covering of bare soils by the proposed interchange and casino complex. As noted previously, the same interchange as it proposed for Alternative B would be developed for both Alternatives D and E. This would result in the same area being covered and the same increased surface runoff. Both Alternative D and E would not increase on-Rancheria runoff beyond that analyzed in the 2001 NIGC EA. The peak flow drainage impacts associated with the construction of the interchange under Alternative D and Alternative E would be the same as identified for Alternative B. Therefore, the additional discharges and peak flows under these alternatives would not exceed the design requirements of the existing culverts and would not result in a significant impact.

The conversion of Rancheria land from open space to impervious surfaces associated with construction of the proposed hotel/casino would result in both increased peak flow and increased total discharge coming off of the developed site during wet weather events. Both Alternative D and Alternative E would result in increased impervious surfaces and an altering of the surface drainage patterns; however, the extent of this change is the less than for the Proposed Project. Measures proposed by the Tribe and imposed by the NIGC to mitigate to this a less than significant effect include the development of an on-site detention basin to assure that no net increases in storm flow downstream of the project site will result. The surface drainage pipes will also be sized to contain the 100-year storm event based on the El Dorado County Drainage Manual. This would reduce impacts for Alternative D and Alternative E to a less-than-significant level.

Mitigation 5.13-1 Peak Flow

No additional mitigation is required beyond that recommended in the 2002 Final EIR and the 2001 NIGC EA and incorporated into the hotel/casino and interchange projects.

Impact 5.13-2 Structural Alterations to Existing Surface Drainage Patterns

AD, AE As previously discussed, the interchange for Alternative D and E would be the same as described and analyzed for Alternative B. Therefore, all changes to existing surface drainage facilities described for Alternative B would be the same for Alternatives D and E. This would result in an existing drainage channel being filled and a new channel being constructed closer to private property. This results in a potentially significant impact. This impact is reduced to a less-than-significant level through the implementation of mitigation proposed in the 2002 Final EIR. This mitigation would apply to Alternatives D and E as well and would also reduce the potential impacts of those alternatives to a less-than-significant level.

As with the Proposed Project, all on-Rancheria construction activities associated with Alternative D and Alternative E would be undertaken outside of known watercourses and water features. Therefore, impacts in this regard would be less than significant.

Mitigation 5.13-2 Structural Alterations to Existing Surface Drainage Patterns

No additional mitigation is required beyond that recommended in the 2002 Final EIR and incorporated into the hotel/casino and interchange projects.

Impact 5.13-3 Impacts to Existing Drainage Structures

AD, AE The interchange related impacts to existing drainage structures associated with Alternative D and Alternative E would be the same as identified under AB. The only existing culvert that may be impacted by construction of the Flyover design is Culvert 1. According to the engineered drawings for the Flyover alternative, cutting and filling will take place on this culvert. This impact is potentially significant, but would be reduced to a less-than-significant level with the implementation of mitigation recommended in the 2002 Final EIR. This same mitigation would also reduce the potential impacts of Alternatives D and E to a less-than-significant level.

All on-Rancheria construction activities associated with Alternative D and Alternative E would be undertaken outside of known watercourses and water features.

Mitigation 5.13-3 Impacts to Existing Drainage Structures

No additional mitigation is required beyond that recommended in the 2002 Final EIR and incorporated into the hotel/casino and interchange projects.

Impact 5.13-4 Cumulative Impacts To Drainage

AD, AE The only project specific drainage impact identified is related to an increase in impervious surface, which would result in an increase in flows into culverts. The implementation of drainage mitigation measures identified in the 2002 Final EIR would ensure that Alternative D and Alternative E will not significantly add to the cumulative impact of flows upon culverts

The proposed detention facility proposed on-Rancheria will attenuate peak flows thereby assuring that drainage facilities are not significantly impacted. Accordingly, Alternatives D and E will not result in a significant impact.

Mitigation 5.13-4 Cumulative Impacts

No additional mitigation is required beyond that recommended in the 2002 Final EIR and incorporated into the hotel/casino and interchange projects.